IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (Canceled).

Claim 25 (Currently Amended): A communication system including:

automation equipment having at least one processing unit configured to execute at least one automation program and at least one web service, said automation equipment including a building automation logic controller for a building, said automation program configured to provide an automation function [[and]], said web service configured to provide a remote access to the automation function and said automation function including a building automation function for the building;

remote equipment configured to communicate with the automation equipment over an IP network;

a computer application configured to execute on the remote equipment and to communicate with the at least one web service to provide a remote automation function to the remote equipment, said remote automation function including at least one of monitoring, display, control, configuration, and programming of the automation function provided by the automation program on the automation equipment using the remote access of the web service; and

said remote automation function being based on at least one service description document configured to describe capabilities of the at least one web service using a WSDL (Web Services Description Language) language.

Claim 26 (Previously Presented): The communication system of claim 25, wherein the service description document is accessible to remote equipment through a URL, URI or IP address through an IP network interface.

Claim 27 (Previously Presented): The communication system of claim 26, wherein the at least one web service is configured to receive and send messages encoded according to at least one communication protocol that conforms to at least one WSDL binding described in the at least one service description document on the IP network.

Claim 28 (Previously Presented): The communication system of claim 27, wherein the at least one WSDL binding described in the at least one service description document conforms to at least one of SOAP, HTTP and MIME protocol.

Claim 29 (Previously Presented): The communication system of claim 28, wherein the at least one service description document includes a description of a capacity of the at least one web service according to at least one communication protocol of the automation equipment.

Claim 30 (Previously Presented): The communication system of claim 27, wherein the at least one WSDL binding described in the at least one service description document conforms to at least one communication protocol of the automation equipment.

Claim 31 (Previously Presented): The communication system of claim 27, wherein the at least one WSDL binding described in the at least one service description document conforms to at least one version of the SOAP protocol encoded in a binary format.

Claim 32 (Previously Presented): The communication system of claim 25, wherein the remote equipment further comprises a remote local storage configured to memorize the at least one service description document.

Claim 33 (Previously Presented): The communication system of claim 26, wherein the automation equipment further comprises an automation equipment local storage configured to memorize the at least one service description document.

Claim 34 (Previously Presented): The communication system of claim 26, further comprising intermediate equipment operatively connected to the automation equipment and the remote equipment, said intermediate equipment including an intermediate local storage configured to memorize the at least one service description document.

Claim 35 (Previously Presented): The communication system of claim 26, further comprising a server operatively connected to the IP network and including a server local storage configured to memorize the at least one service description document.

Claim 36 (Previously Presented): The communication system of claim 26, further comprising a service description document generator configured to dynamically build the at least one service description document based on a request from the remote equipment and accessible to the remote equipment through an URL, URI or IP address through the IP network interface.

Claim 37 (Previously Presented): The communication system of claim 27, wherein the at least one web service is configured to interact with the automation program in the automation equipment and is installed in the automation equipment.

Claim 38 (Previously Presented): The communication system of claim 27, further comprising intermediate equipment operatively connected to the automation equipment and the remote equipment, said intermediate equipment including at least one web service configured to interact with the automation program in the automation equipment.

Claim 39 (Previously Presented): The communication system of claim 28, wherein the at least one web service is configured to receive and send requests encoded according to at least one protocol of the automation equipment.

Claim 40 (Previously Presented): The communication system of claim 26, wherein the remote equipment is configured to access a discovery document for the at least one service description document through an URL, URI or IP address.

Claim 41 (Previously Presented): The communication system of claim 40, wherein the discovery document for the service description document is represented by at least one web page that conforms to at least one web page description language, and the discovery document includes at least one list of URL, URI or IP addresses for the at least one service description document.

Claim 42 (Previously Presented): The communication system of claim 40, wherein a format of the discovery document of the at least one service description document conforms

to at least one of ADS (Advertisement and Discovery Services), DISCO (Discovery), and UDDI (Universal Description, Discovery and Integration) specifications.

Claim 43 (Previously Presented): The communication system of claim 40, wherein the automation equipment further comprises a storage device configured to memorize the discovery document for the at least one service description document.

Claim 44 (Previously Presented): The communication system of claim 40, further comprising intermediate equipment operatively connected to the automation equipment and the remote equipment and comprising a storage device configured to memorize the discovery document for the at least one service description document.

Claim 45 (Previously Presented): The communication system of claim 40, further comprising a server operatively connected to the IP network and comprising a storage device configured to memorize the discovery document for the at least one service description document.

Claim 46 (Previously Presented): The communication system of claim 25, wherein the automation equipment includes at least one of a programmable logic controller, a numeric controller, an instrumentation station, and a control station.

Claim 47 (Previously Presented): The communication system of claim 25, wherein the automation function includes at least one of an industrial control function, a building automation equipment function, an instrumentation for electrical distribution networks function, and a control for electrical distribution networks function.

Claim 48 (Currently Amended): A method of communicating in a communication system, said method comprising steps of:

executing at least one automation program and at least one web service in an automation equipment having at least one processing unit, said automation equipment including a building automation logic controller for a building;

providing an automation function from the automation program, said automation function including a building automation function for the building;

providing remote access to the automation function from the web service;

communicating with the automation equipment over an IP network from a remote equipment;

executing a computer application on the remote equipment;

communicating with the at least one web service from the computer application on the remote equipment to provide a remote automation function to the remote equipment, the remote automation function including at least one of monitoring, display, control, configuration, and programming of the automation function provided by the automation program on the automation equipment using the remote access of the web service; and

describing capabilities of the at least one web service using a WSDL (Web Services Description Language) language in the at least one service description document, and basing the remote automation function on the at least one service description document.

Claim 49 (Previously Presented): The method of claim 48, further comprising steps of:

sending a request on the IP network from at least one of the computer application and a development application executing on the remote equipment to receive the at least one service description document;

generating at least a part of the computer application based on the at least one service description document using a code generator; and

transmitting messages between the computer application and the at least one web service according to a capability of the at least one web service described in the at least one service description document.

Claim 50 (Previously Presented): The method of claim 49, wherein the sending a request further comprises using at least one discovery documents to receive the at least one service description document.

Claim 51 (Previously Presented): The method of claim 49, wherein the generating further comprises generating at least part of the computer application using a code generator executing on at least one of the remote equipment and a second remote equipment operatively connected to the automation equipment and the remote equipment by the IP network.

Claim 52 (Previously Presented): The method of claim 48, wherein the automation equipment includes at least one of a programmable logic controller, a numeric controller, an instrumentation station, and a control station.

Claim 53 (Previously Presented): The method of claim 48, wherein the automation function includes at least one of an industrial control function, a building automation

equipment function, an instrumentation for electrical distribution networks function, and a control for electrical distribution networks function.

Claim 54 (New): A communication system including:

automation equipment having at least one processing unit configured to execute at least one automation program and at least one web service, said automation equipment including an industrial automation logic controller for industrial equipment, said automation program configured to provide an automation function, said web service configured to provide a remote access to the automation function and said automation function including an industrial equipment automation function for the industrial equipment;

remote equipment configured to communicate with the automation equipment over an IP network;

a computer application configured to execute on the remote equipment and to communicate with the at least one web service to provide a remote automation function to the remote equipment, said remote automation function including at least one of monitoring, display, control, configuration, and programming of the automation function provided by the automation program on the automation equipment using the remote access of the web service; and

said remote automation function being based on at least one service description document configured to describe capabilities of the at least one web service using a WSDL (Web Services Description Language) language.

Claim 55 (New): A method of communicating in a communication system, said method comprising steps of:

executing at least one automation program and at least one web service in an automation equipment having at least one processing unit, said automation equipment including an industrial automation logic controller for industrial equipment;

providing an automation function from the automation program, said automation function including an industrial equipment automation function for the industrial equipment;

providing remote access to the automation function from the web service;

communicating with the automation equipment over an IP network from a remote equipment;

executing a computer application on the remote equipment;

communicating with the at least one web service from the computer application on the remote equipment to provide a remote automation function to the remote equipment, the remote automation function including at least one of monitoring, display, control, configuration, and programming of the automation function provided by the automation program on the automation equipment using the remote access of the web service; and

describing capabilities of the at least one web service using a WSDL (Web Services Description Language) language in the at least one service description document, and basing the remote automation function on the at least one service description document.